Samsung Gear S Application Development

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Self Introduction

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Software R&D Center

Samsung Electronics

주요 업무

Tizen Web Application

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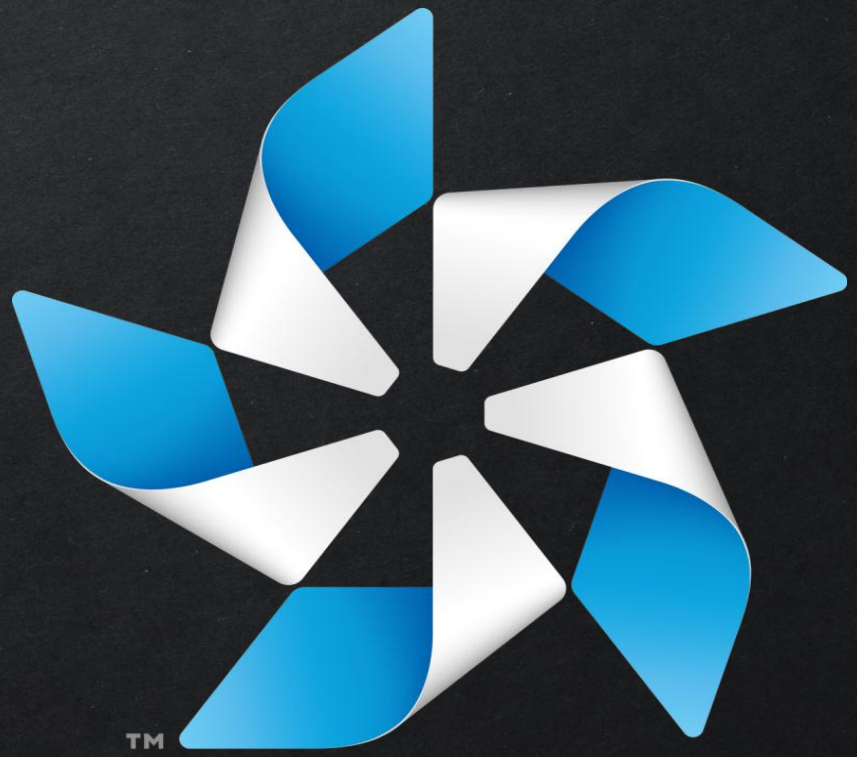
Agenda

1. Introduction
   - Wearable Device
   - Tizen
2. Development Environment
   - Tizen SDK
   - Tizen Web Application
3. Gear S Information
4. Closing



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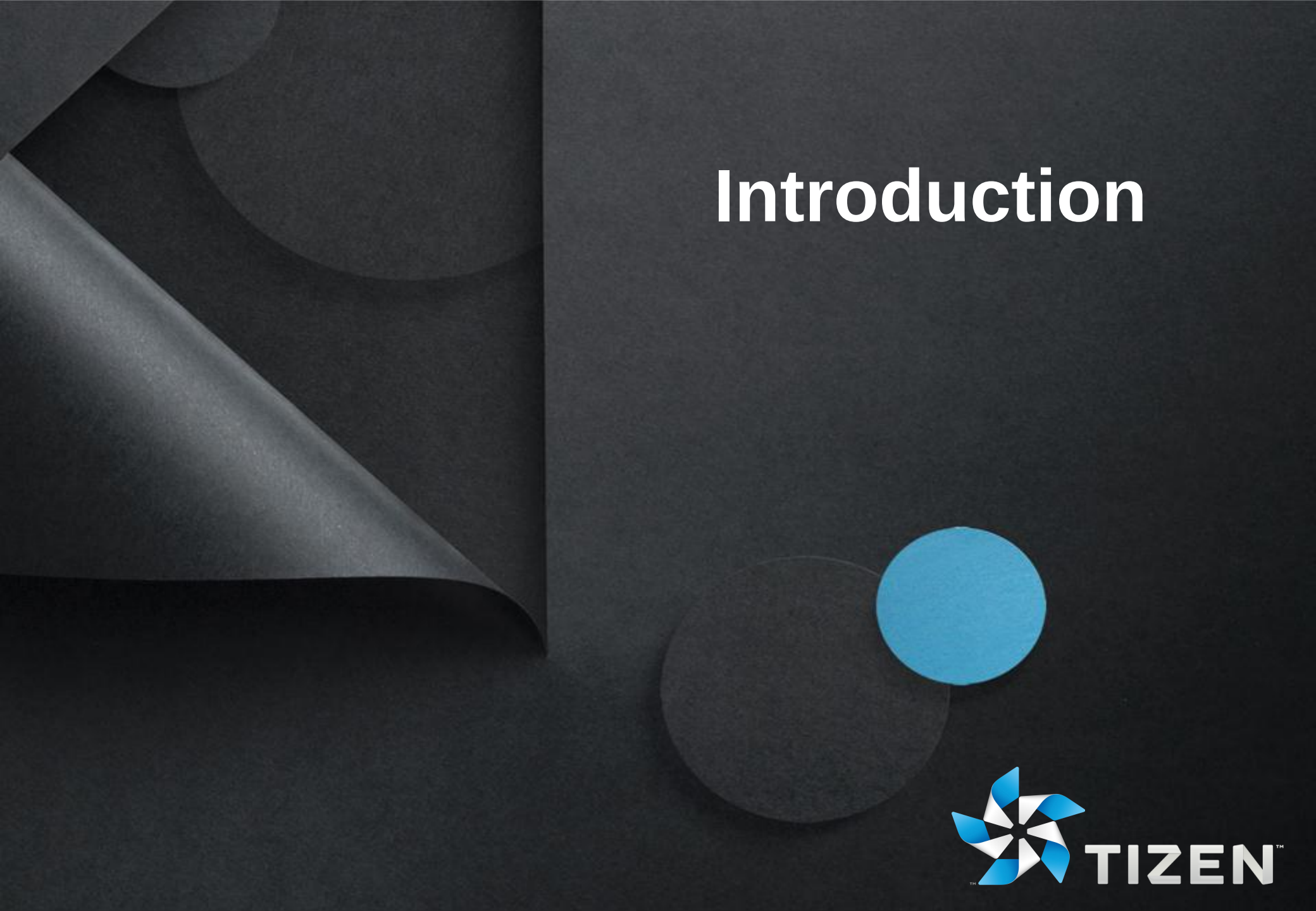
Introduction



Many smart watches in the wearable market

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Tizen Wearable Device

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Samsung Gear S

TRUE CONNECTED EXPERIENCE

- Tizen based wearable platform
- 2.0” Curved Super AMOLED (360x480)
- **Advanced Communicator**

  (3G, WiFi, Bluetooth Connectivity)

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Samsung Gear 2 & Gear

Samsung Gear 2 & Gear 2 Neo

- Tizen based wearable platform
- 1.63” Super AMOLED (320x320) Display
- USIM 미포함 (**Smartphone Companion Device**)

Samsung Gear (구 Galaxy Gear)

- 출시 당시 안드로이드 운영체제 탑재
- **Tizen based wearable platform** 업데이트 가능

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What is Tizen?

The OS of Everything

*Tizen is the **open-source operating system** for **all device areas**.*

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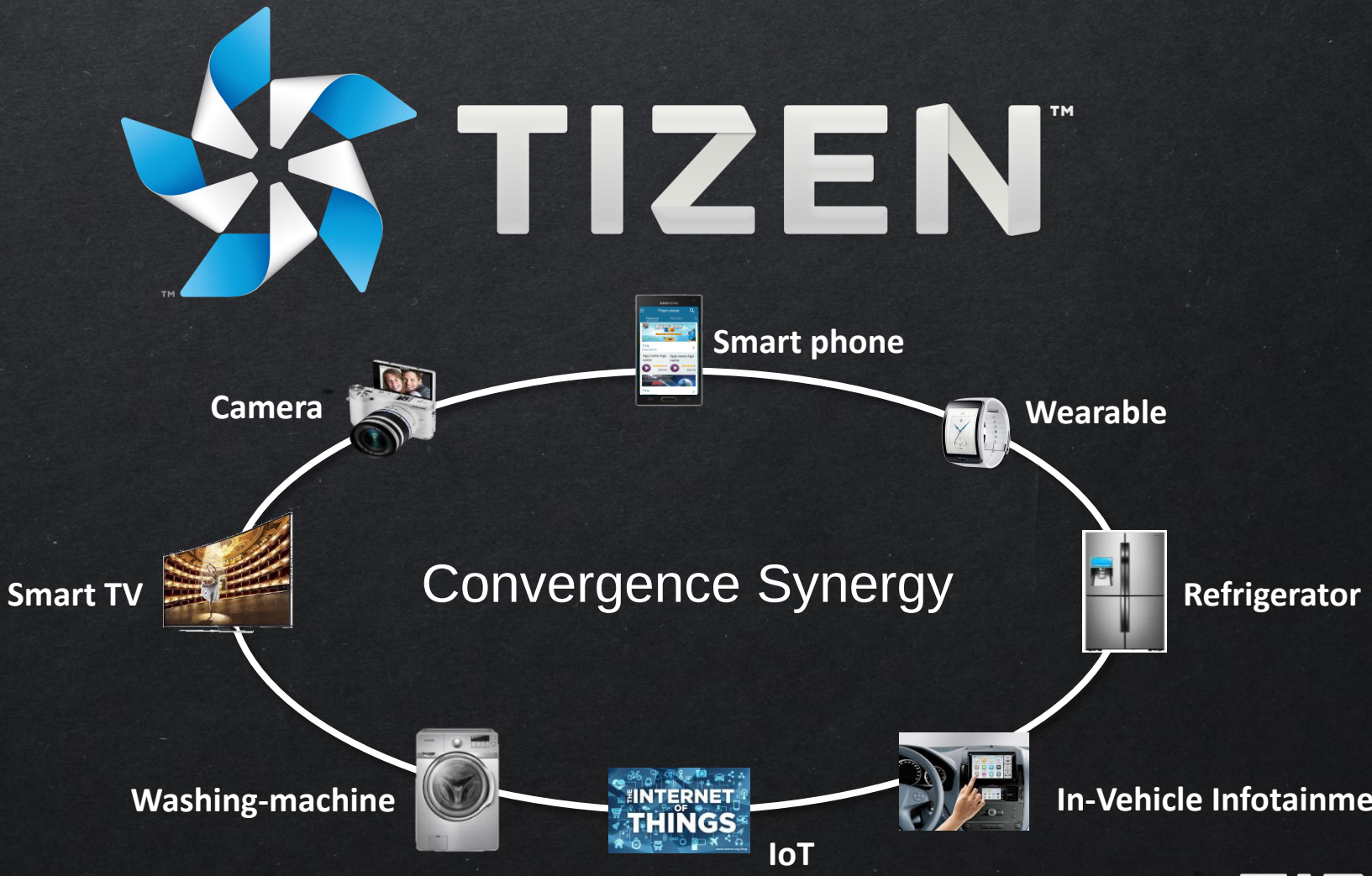
What is Tizen?



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Tizen is a Web platform

Web-centric Platform

- W3C 웹 표준을 준수하며 높은 HTML5/W3C 호환성 보유
- Web 기반으로 빠르고 쉽게 Application 제작 가능 (Developer Friendly)

Web performance comparable to native

- World best HTML5 Support
- Web Apps with smooth response
- Web based 3D App with fast and fancy graphics

2D (Crazy Chicken)

WebGL 3D (HelloRacer.com)

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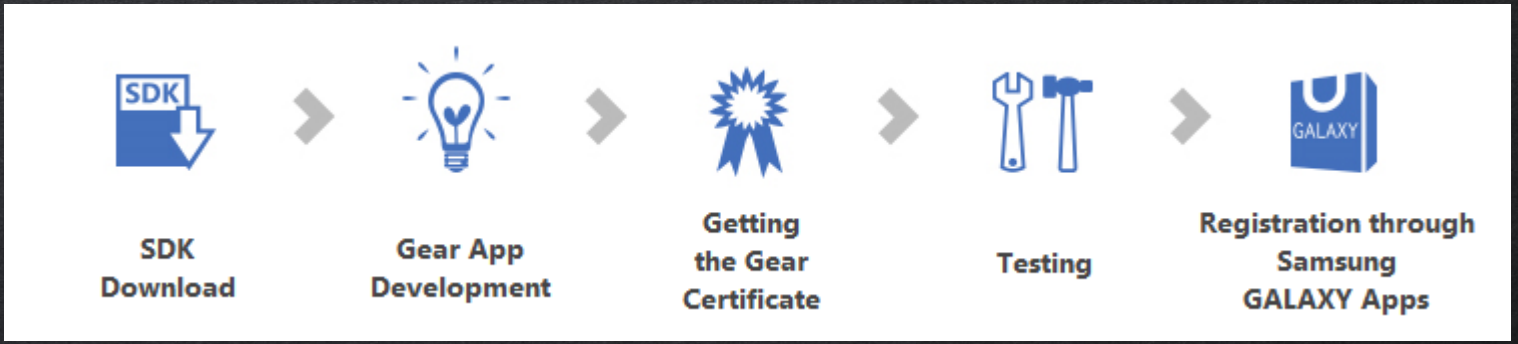
Development Environment

How Can I Develop a Gear Application?



1. SDK Download : **Tizen SDK for Wearable 1.0.0**
   (http://developer.tizen.org)
2. Gear App Development : **IDE** 기반으로 **Web Application** 제작
3. Gear 인증서 획득 : **Test Device** 등록
4. 테스트
5. 앱스토어 등록 : **Galaxy Apps** 등록

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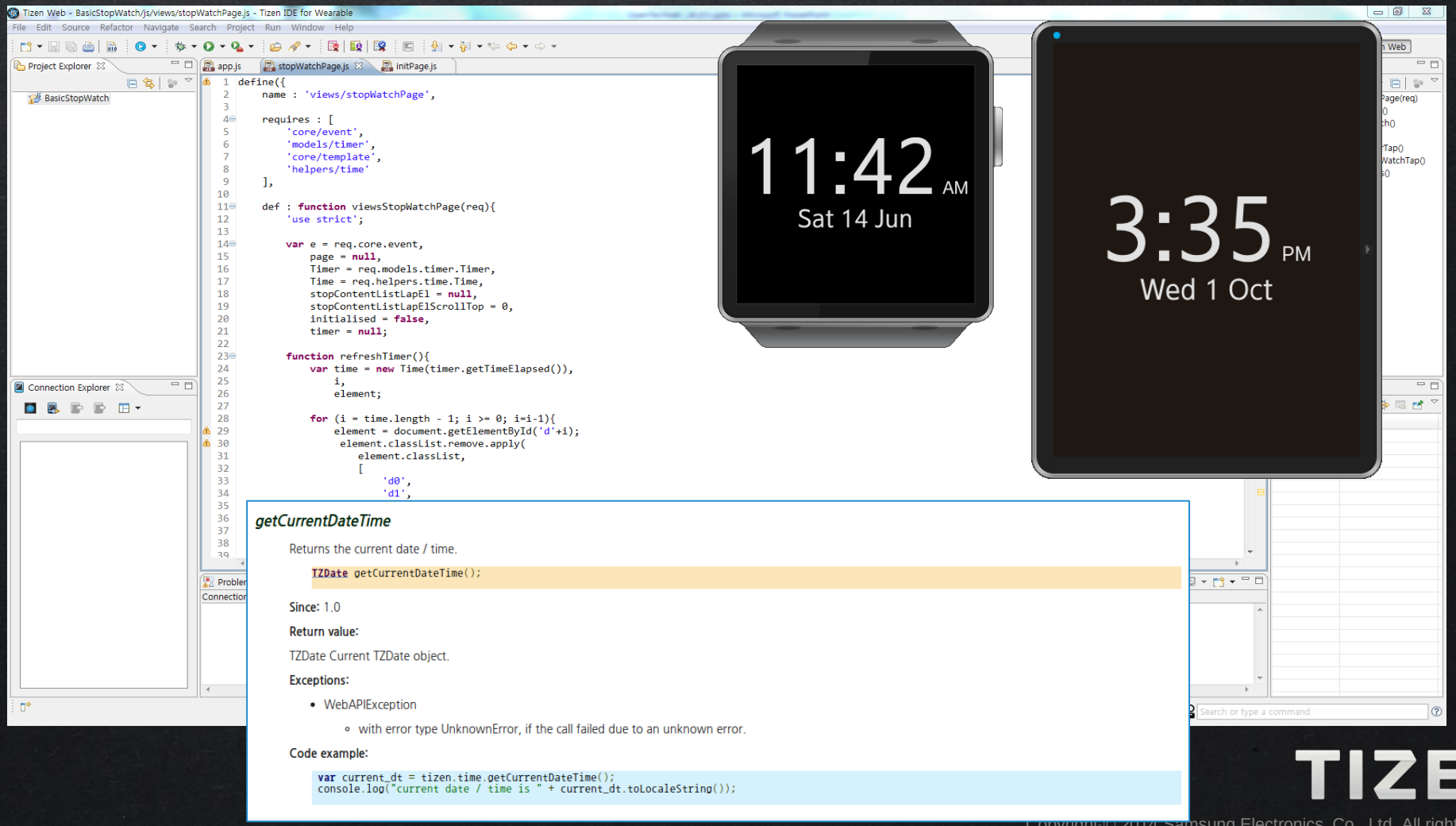
Tizen SDK

Eclipse 기반의 IDE 및 에뮬레이터, 샘플 코드, 문서 등 제공



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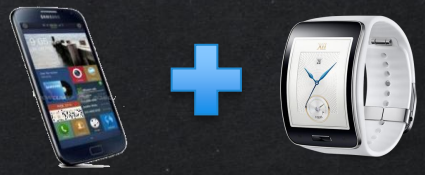
Tizen SDK Version

- **Tizen 2.2.1 SDK** (2013/11/09)

- **Tizen SDK for Wearable 1.0** (2014/10/06)

- **Tizen 2.3 SDK beta** (2014/09/30)



*. SDK 다운로드 주소 : https://developer.tizen.org/ko/downloads

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Tizen Web Application

HTML 및 JavaScript을 기반으로 제작된 Application

Rich HTML5 and W3C APIs

- HTML5 API 풍부한 지원 및 웹 표준 지원

Tizen Device APIs

- 디바이스 자원 접근 및 사용 용이

Tizen Packaged Apps

- 독립적으로 설치 및 실행 가능 / 갤럭시 스토어 등록 및 판매 가능

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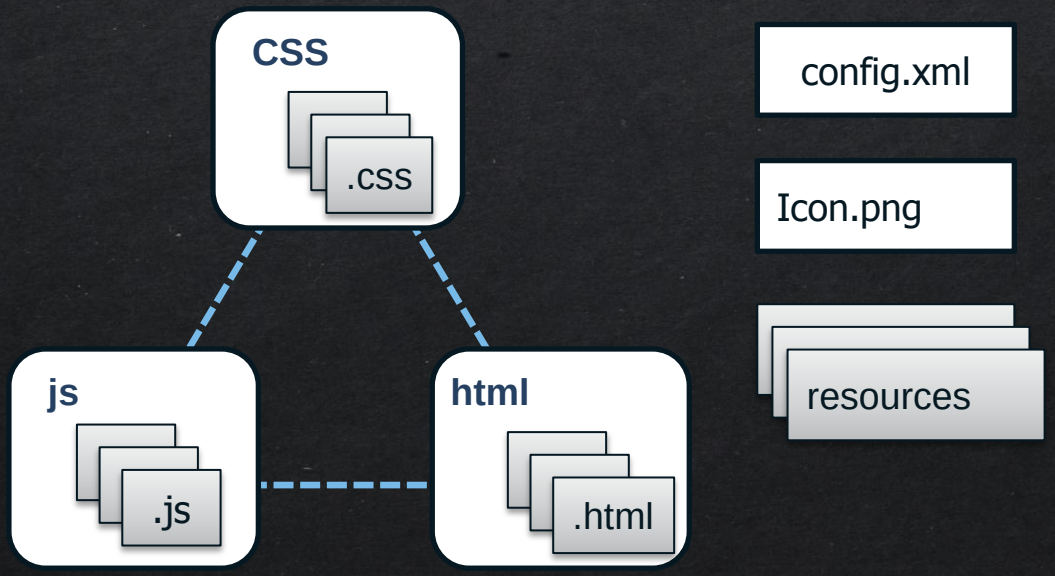
Tizen Web Application Structure

- Client Side Script인 **JavaScript** 사용하여 개발

(※ Server Side Script : PHP, ASP, JSP)

기본 프로젝트 구조



- HTML : 페이지 구조
- CSS : 페이지 디자인
- JavaScript : 동적 페이지 구성
  이벤트처리
- Icon : 기본 아이콘
- Config.xml : 환경 설정

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개발 참고 자료

1) Sample Web Application (SDK)

<Wearable Samples>

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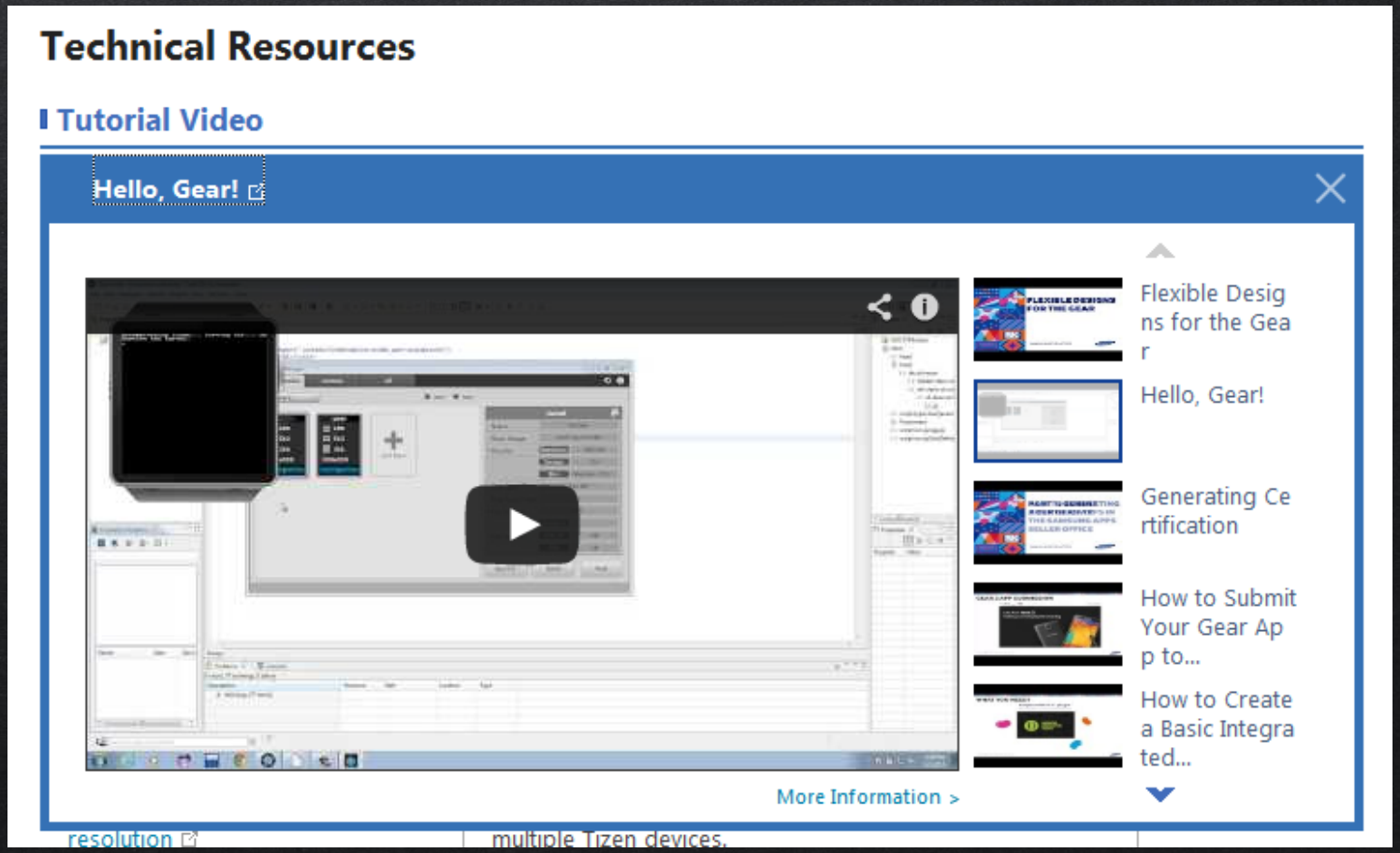
개발 참고 자료

2) Tutorial Video (Samsung Developer Site)



<http://developer.samsung.com/samsung-gear>

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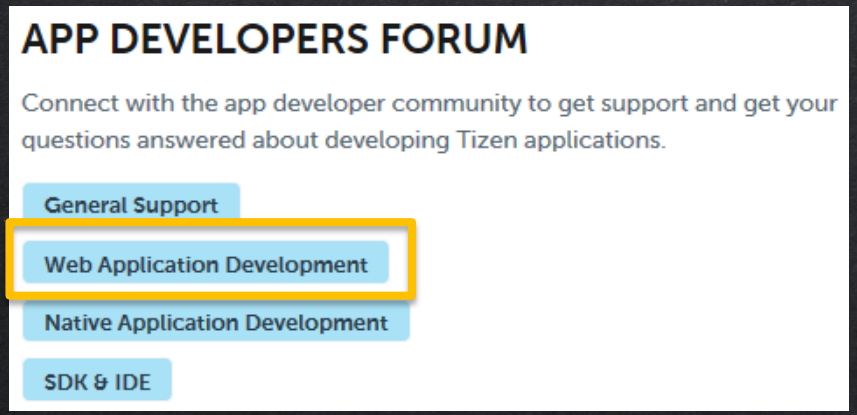
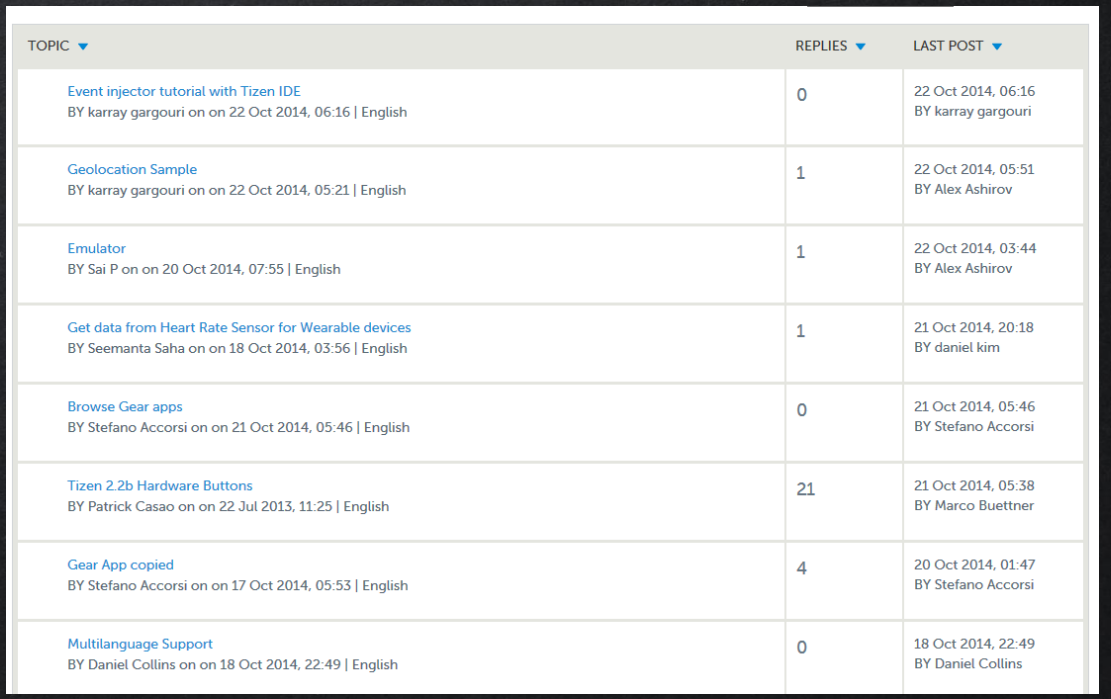
개발 참고 자료

3) App Developers Forum (Tizen Developer Site)


APP DEVELOPERS FORUM
Connect with the app developer community to get support and get your questions answered about developing Tizen applications.
General Support
Web Application Development
Native Application Development
SDK & IDE



TOPIC	REPLIES	LAST POST
Event injector tutorial with Tizen IDE BY karray gargouri on on 22 Oct 2014, 06:16 | English	0	22 Oct 2014, 06:16 BY karray gargouri
Geolocation Sample BY karray gargouri on on 22 Oct 2014, 05:21 | English	1	22 Oct 2014, 05:51 BY Alex Ashirov
Emulator BY Sai P on on 20 Oct 2014, 07:55 | English	1	22 Oct 2014, 03:44 BY Alex Ashirov
Get data from Heart Rate Sensor for Wearable devices BY Seemanta Saha on on 18 Oct 2014, 03:56 | English	1	21 Oct 2014, 20:18 BY daniel kim
Browse Gear apps BY Stefano Accorsi on on 21 Oct 2014, 05:46 | English	0	21 Oct 2014, 05:46 BY Stefano Accorsi
Tizen 2.2b Hardware Buttons BY Patrick Casao on on 22 Jul 2013, 11:25 | English	21	21 Oct 2014, 05:38 BY Marco Buettner
Gear App copied BY Stefano Accorsi on on 17 Oct 2014, 05:53 | English	4	20 Oct 2014, 01:47 BY Stefano Accorsi
Multilanguage Support BY Daniel Collins on on 18 Oct 2014, 22:49 | English	0	18 Oct 2014, 22:49 BY Daniel Collins

<https://developer.tizen.org/forums/web-application-development>

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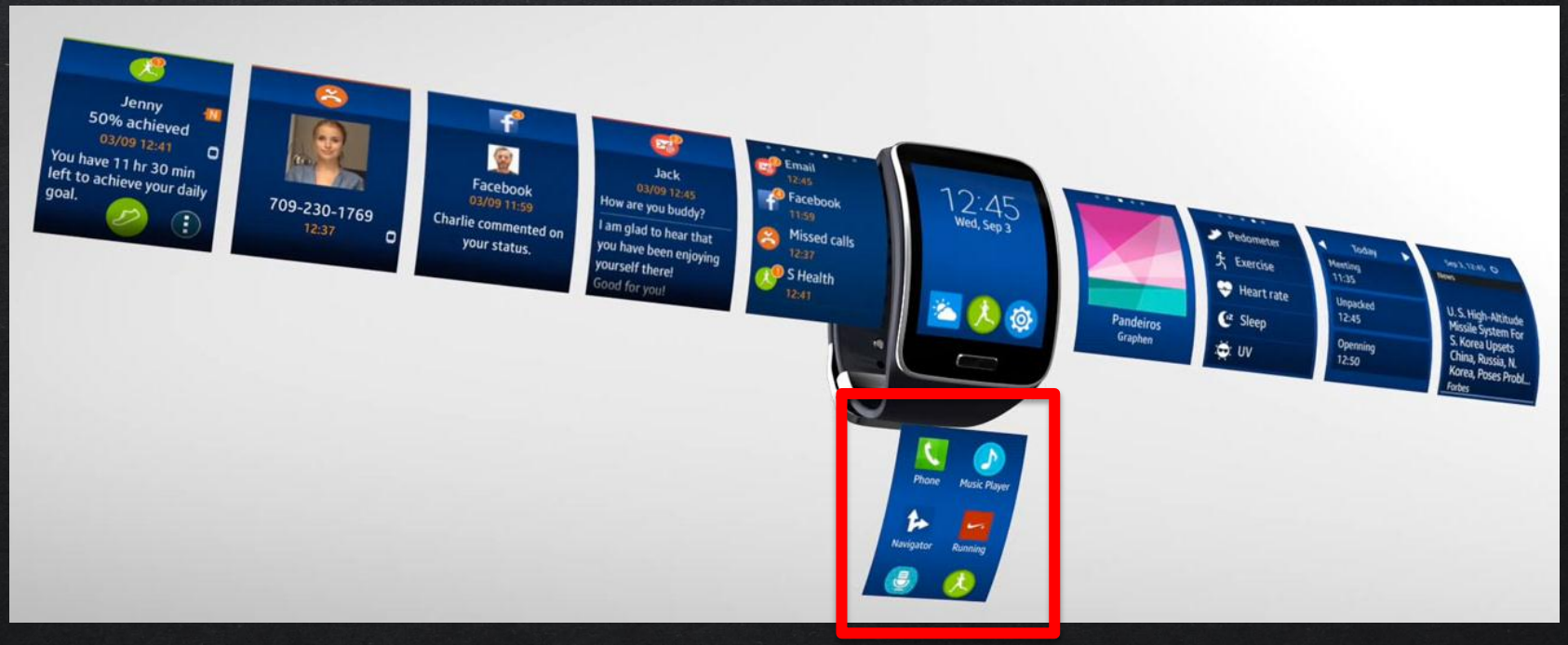
Gear S Information

Gear Application Type

1) Watch App

- Default Application Type

- 기본 값으로 별도 지정 필요 없음



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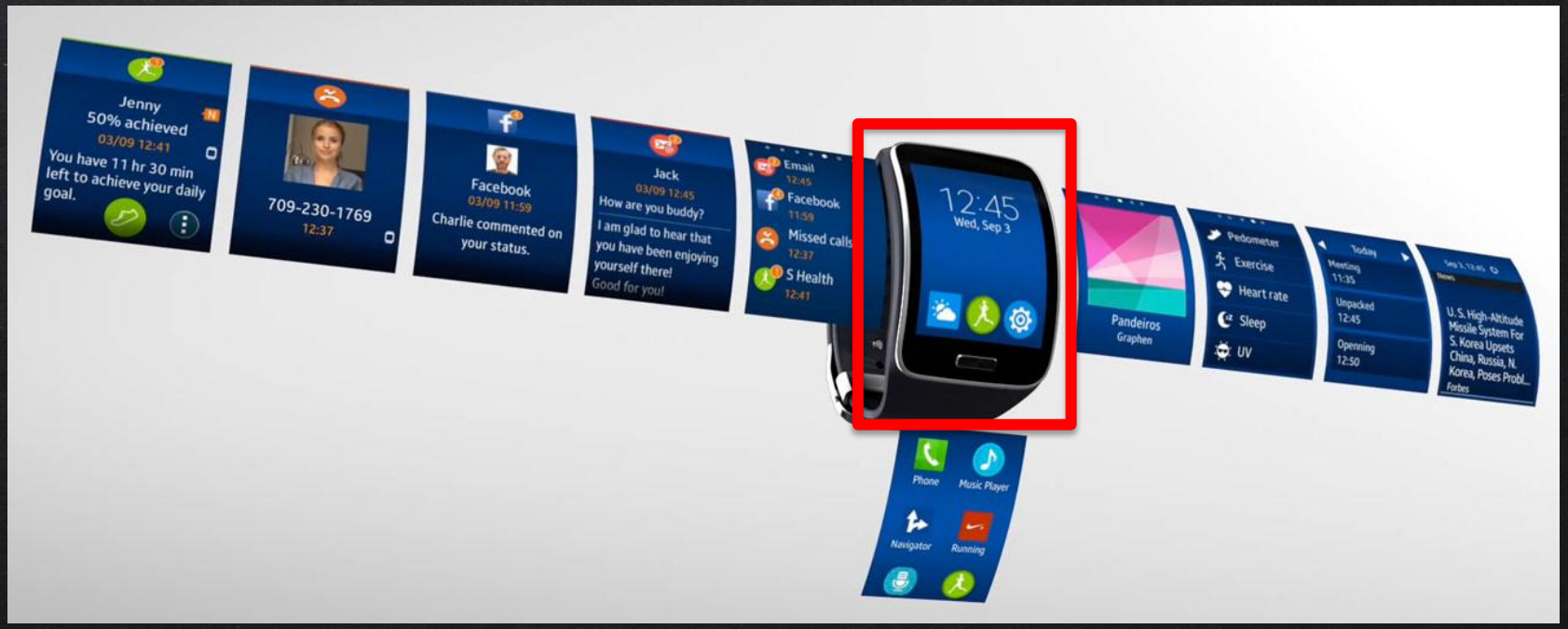
Gear Application Type

2) Watch Clock

- Homescreen에서 실행되는 기본 시계
- config.xml에서 카테고리 지정

Micro Software (2014.06 ~ 2014.08)



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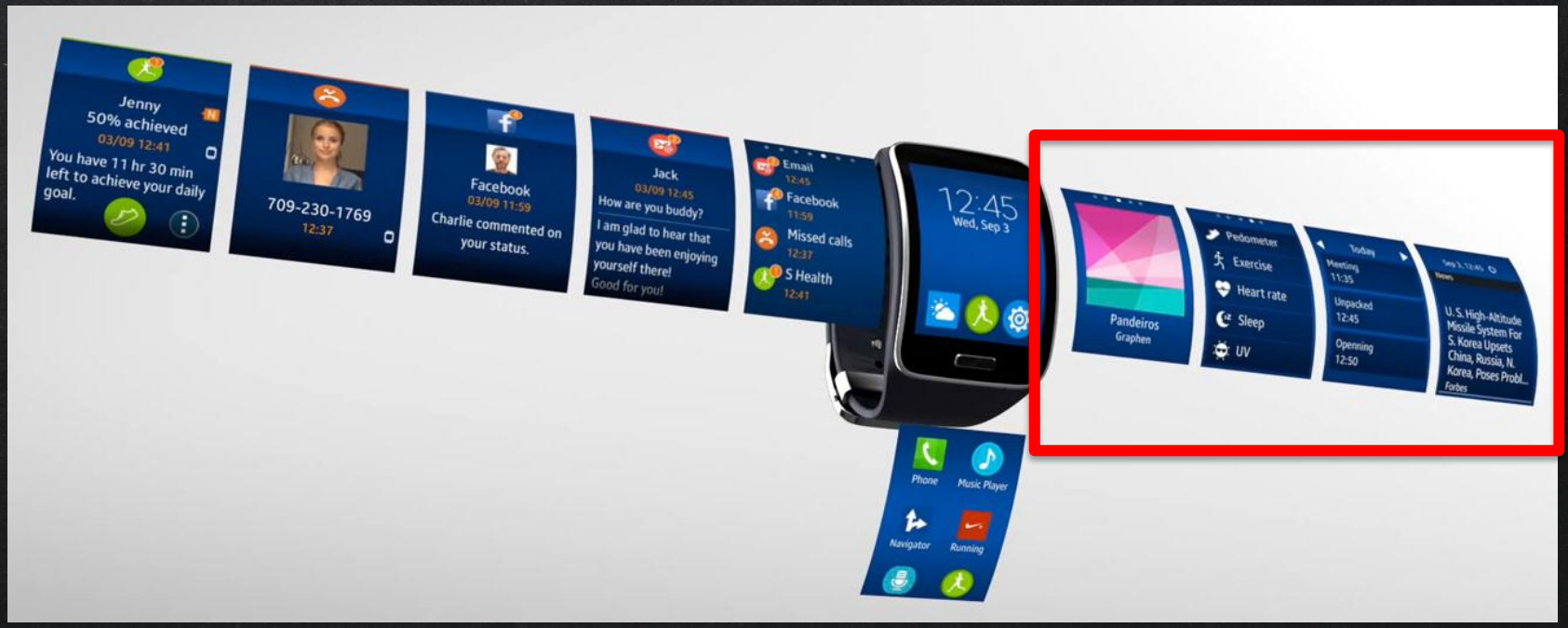
Gear Application Type

3) Widgets (Dynamic Box)

- Gear S에 추가된 Type

- config.xml 파일에 app-widget 관련 내용 추가하여 지정



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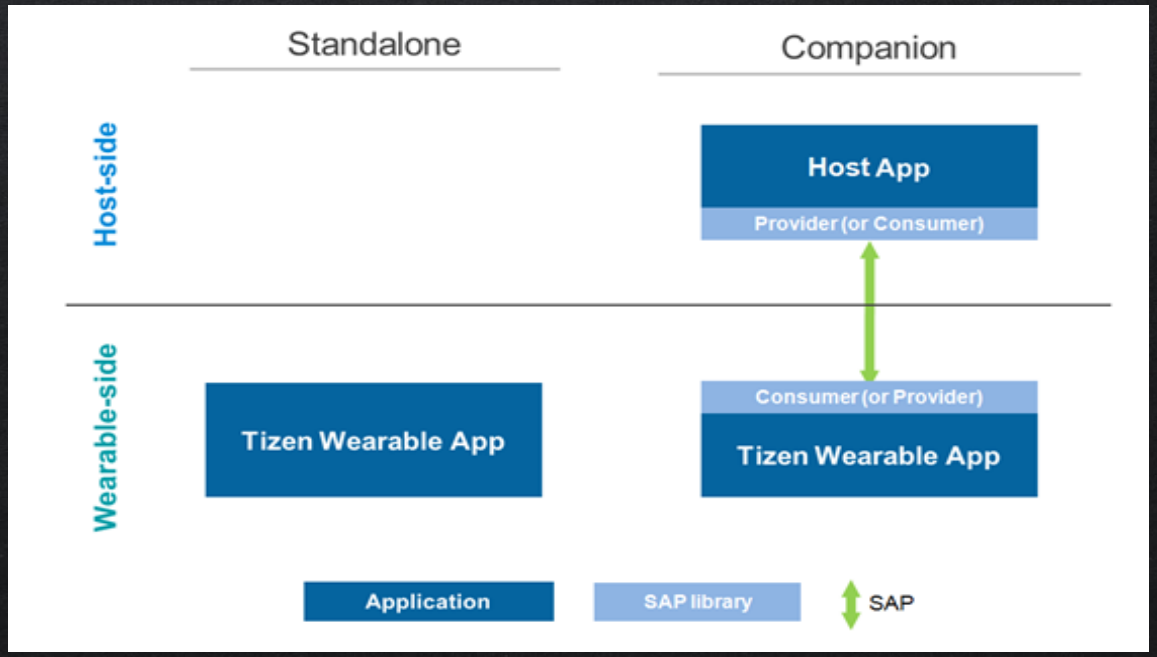
Enhanced Standalone Features

Real freedom by delivering smart mobile experience **without a smartphone in hand.**

- *Wi-Fi :802.11 b/g/n, A-GPS/Glonass*
- *Bluetooth® : 4.1*
- *900/2100 or 850/1900 (3G)*



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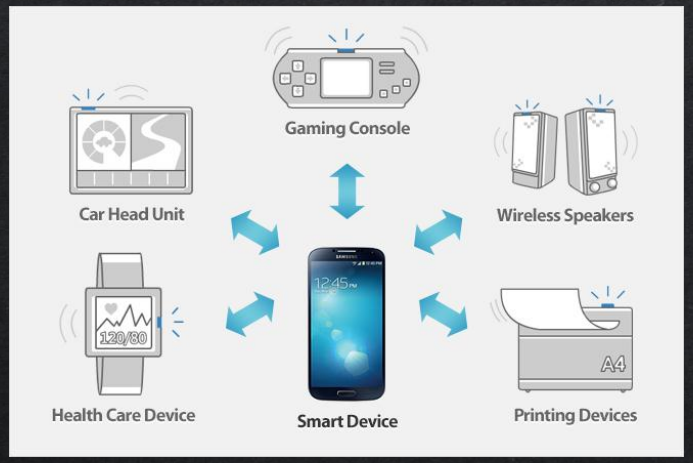
SAP (Samsung Accessory Protocol)

호스트 디바이스와 액세사리 디바이스간의 통신 환경을 제공 (블루투스 or WI-FI)

예) 갤럭시 노트4와 삼성 기어 S



※삼성개발자 사이트에서 샘플 및 문서 제공 : http://developer.samsung.com/samsung-gear

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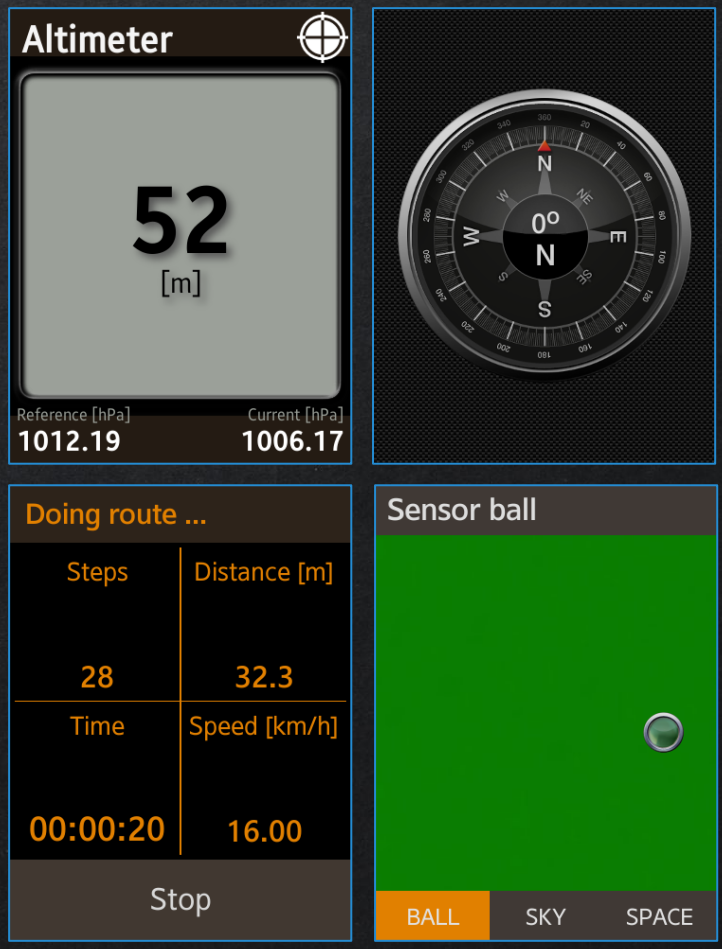
New Sensor APIs

다양한 센서를 웹 애플리케이션에서 사용할 수 있는 **Device Web API 제공**

- *Accelerometer*
- *Gyroscope*
- *Heart Rate*

- ***Magnetic (Gear S)***
- ***Ambient Light (Gear S)***
- ***UV (Gear S)***
- ***Barometer (Gear S)***



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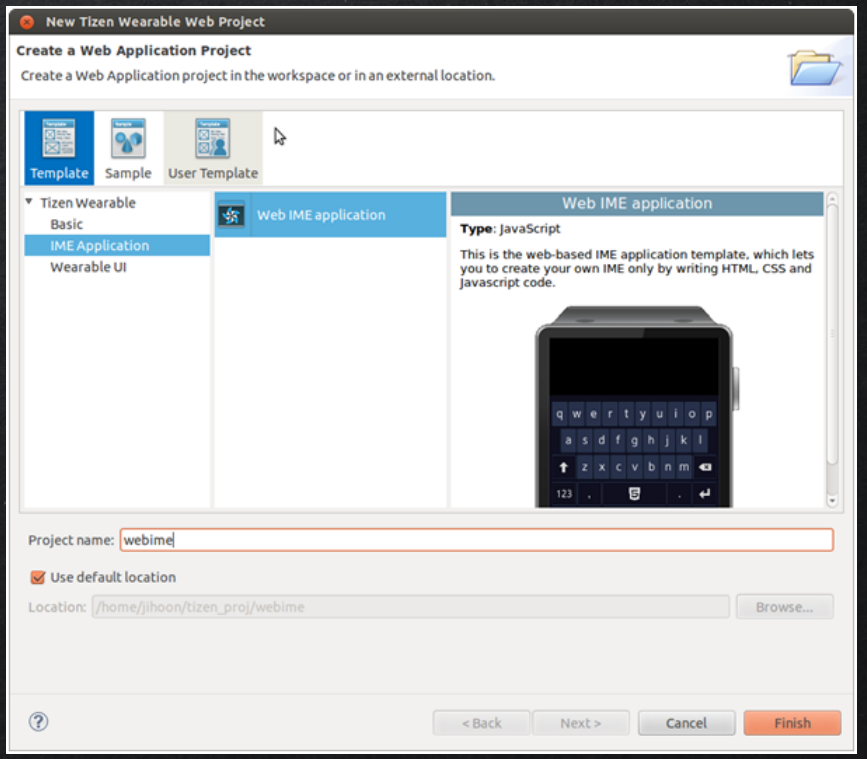
IME (Input Method Editor)

- Gear S부터 Keyboard IME 지원
- Web Application으로 직접 IME 제작하여 추가 가능 (SDK내 템플릿 및 문서 제공중)



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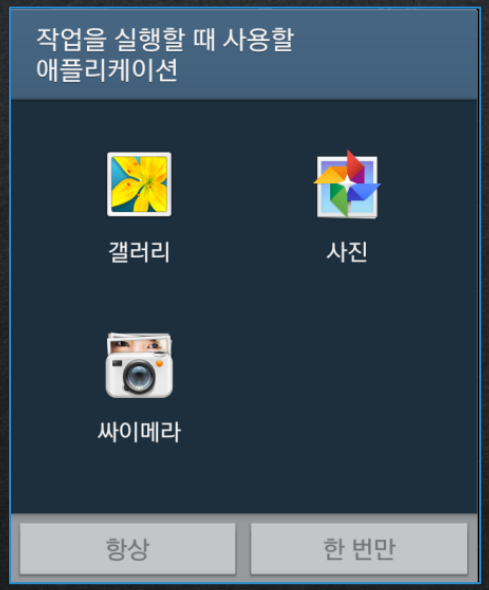
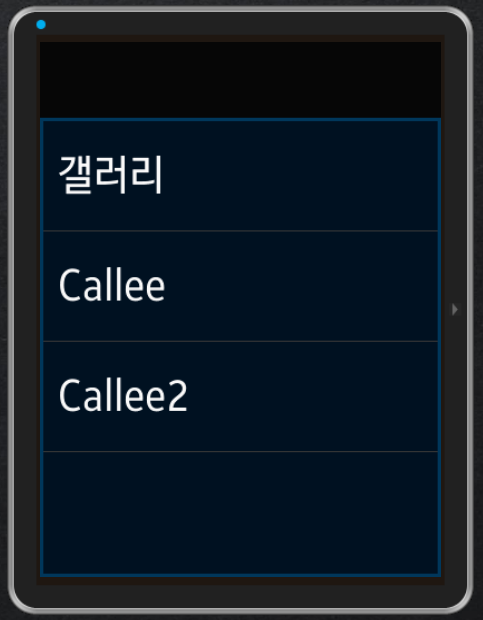
AppControl

다른 Application에 의해서 실행되거나, 다른 Application을 실행하는 기능 (URI, MIME)

예) ImageViewer



App Selector
(Android)



App Selector
(Gear S)

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Etc.

GeoLocation

- Gear S부터 GPS가 지원되어 위치기반 서비스 가능

(http://www.w3.org/TR/2013/REC-geolocation-API-20131024)

Web Speech

- Speech recognition and synthesis
- 현재 Speech synthesis만 지원중 (Text to Speech 서비스 가능)

(https://dvcs.w3.org/hg/speech-api/raw-file/tip/speechapi.html)

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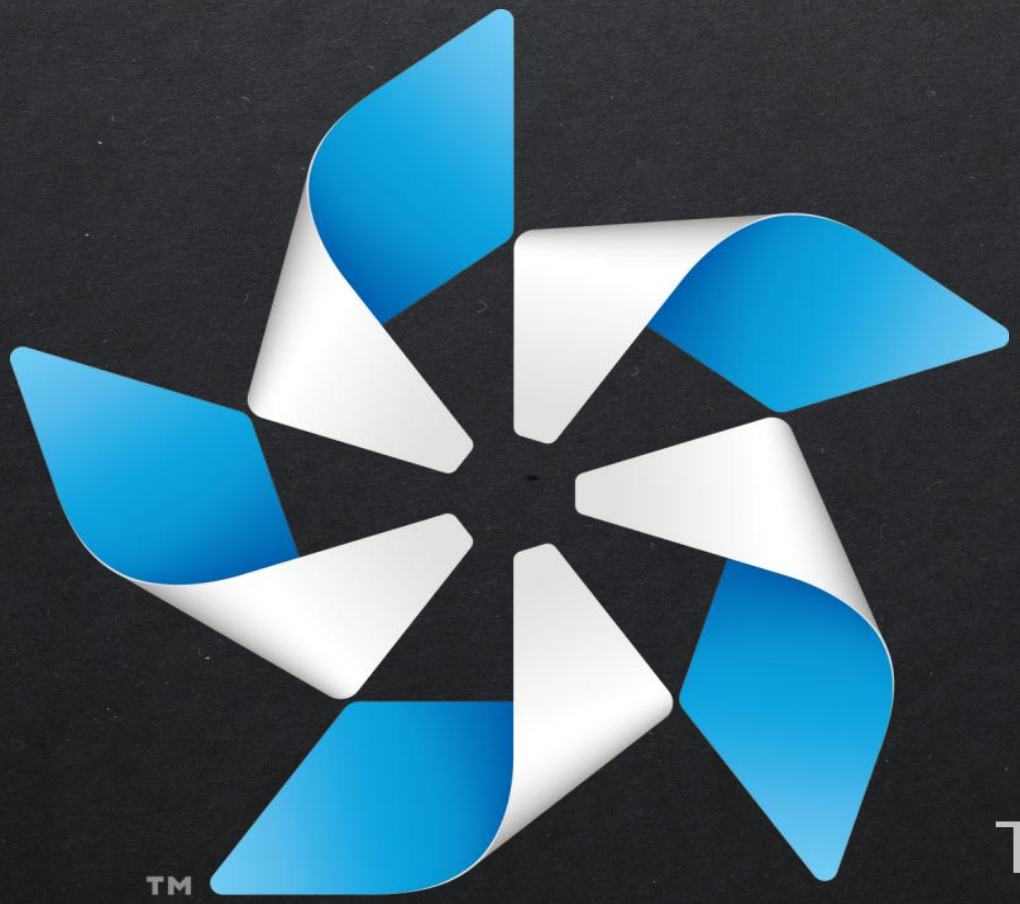
Closing



Q & A

Thanks for your attention!

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